SEARCH REQUEST FORM

Scientific and Technical Information Center

5	cientific and Techni	cal Information Center	
Requester's Full Name:	Number 30 5 - 357 on: Cp3 5Babo Re	Examiner #: 6040 Date Serial Number: 09 /89 sults Format Preferred (circle): PAP	: 26/02 90/50 ER DISK E-MAIL
If more than one search is sub	mitted, please priori	tize searches in order of need. **********	, *******
Please provide a detailed statement of the Include the elected species or structures,	e search topic, and describ keywords, synonyms, acr s that may have a special i	ee as specifically as possible the subject ma onyms, and registry numbers, and combine meaning. Give examples or relevant citatic	tter to be searched.
Title of Invention:		•	
Earliest Priority Filing Date:			
For Sequence Searches Only Please incli	ude all pertinent information	ı (parent, child, divisional, or issued patent nu	mbers) along with the
appropriate serial number.			
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STAFF USE ONLY	Type of Search	Vendors and cost where app	licable
Searcher: Mellerson	NA Sequence (#)	STN	
Searcher Phone #: $8 - 46$	AA Sequence (#)	Dialog	
Searcher Location: CP3/4 3D6 2	Structure (#)	Questel/Orbit _ 22.13	
Date Searcher Picked Up:	Bibliographic	Dr.Link	
Date Completed: 8 0	Litigation	Lexis/Nexis 40.00	
Searcher Prep & Review Time:	Fulltext	Sequence Systems	
Clerical Prep Time:	Patent Family	WWW/Internet	

PTO-1590 (8-01)

Current session 06/08/2002

(C) OUESTEL 1994

QUESTEL.ORBIT (TM) 1998

06/08/02 16*36*50

Last connection: 02/08/02 17*15*32

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- EPAPAT contains all unique EPTEXT data. EPTEXT file removed
- New Patent Citation Commands: easy & precise INFO PATCITE
- USAPPS Reloaded: Pricing, see INFO USAPPS
- ..FILE / :.INFO / ..GUIDE

Query/Command: file pluspat

INPADOC - Time in minutes: 0,14

The cost estimation below is based on Questel's

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Estimated cost: 0.15 USD

Cost estimated for the last database search : 0.15 USD

Estimated total session cost : 1.13 USD

Selected file: PLUSPAT

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Comprehensive Worldwide Patents database

New Patent Citation Commands & FAM Citation Report - see INFO PATCITE Last update of file: 2002/07/31 (YYYY/MM/DD) 2002-30/UP (basic

update)

Search statement 1

Query/Command: us5919507/pn

** SS 1: Results 1

Search statement 2

Query/Command: prt full nonstop legalall

1/1 PLUSPAT - ©QUESTEL-ORBIT - image

PN - US5919507 A 19990706 [US5919507]

TI - (A) Preservation compositions and methods for mushrooms

PA - (A) PENN STATE RES FOUND (US)

IN - (A) BEELMAN ROBERT B (US); DUNCAN ERIC M (US)

AP - US12090598 19980722 [1998US-0120905]

PR - US6067097P 19971002 [1997US-P060670] US12090598 19980722 [1998US-0120905]

IC - (A) A23L-003/34

EC - A23B-007/04K

A23B-007/10 A23B-007/154 A23B-007/157

PCL - ORIGINAL (O): 426268000; CROSS-REFERENCE (X): 426303000 426310000 426335000 426615000

DT - Corresponding document

CT - US3718482; US4066795; US4814192; US4959483; US5055313

STG - (A) United States patent

AB - Preservative compositions using toxicologically acceptable ingredients, and employing a pH of 9.0 or above for at least part of the process, for controlling the growth of spoilage bacteria and for preventing unwanted color changes in fresh and processed mushrooms. Aqueous solutions of preservatives are prepared and applied in multiple stages to the mushrooms, by spraying or immersion. More specifically, disclosed is a method for preserving fresh and processed mushrooms, comprising the steps of: contacting the mushrooms with an antimicrobial buffer solution having a pH of from about 9.5 to about 11.0; and rinsing the mushrooms one or more times immediately after the contacting step with pH-neutralizing buffer solutions of erythorbic acid and sodium erythorbate, in ratios of about 1:4, with a sufficient pH to return the mushrooms to the mushroom physiological pH of about 6.5.

1/1 LGST - ©LEGSTAT

PN - US 5919507 [US5919507]

AP - US 120905/98 19980722 [1998US-0120905]

DT - US-P

ACT - 19980722 US/AE-A

APPLICATION DATA (PATENT)

US 120905/98 19980722 [1998US-0120905]

19980722 US/AS02

ASSIGNMENT OF ASSIGNOR'S INTEREST PENN STATE RESEARCH FOUNDATION, THE 304 OLD MAIN UNIVERSITY PARK, PENNSYLVANIA 1 * BEELMAN, ROBERT B. : 19980630; DUNCAN, ERIC M. : 19980630

19990706 US/A PATENT

UP - 2000-08

Query/Command: file inpadoc

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Search statement 1			

Query/Command: fam us5919507/pn

1 Patent Groups

** SS 1: Results 9

Search statement

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1/9 INPADOC - ©INPADOC

PN - AT 211619 E 20020115 [ATE211619]

TI - VERFAHREN ZUR KONSERVIERUNG VON PILZEN

IN - BEELMAN ROBERT B [US]; DUNCAN ERIC M [US]

PA - PENN STATE RES FOUND [US]

AP - AT 98950857/98-EP 19981002 [1998EP-0950857]

PR - US 60670/97-P 19971002 [1997US-P060670] US 120905/98-A 19980722 [1998US-0120905] WO 9820728/98(US)-W 19981002 [1998WO-US20728]

IC - A23B-007/04; A23B-007/10; A23B-007/154; A23B-007/157

1/2 LEGALI - ©LEGSTAT

PN - AT 211619 [ATE211619]

DT - AT-R

ACTE - 20020715 AT/RER [-]

CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT

TREATIES

UP - 2002-30

2/2 LEGALI - ©LEGSTAT

PN - EP 983004 [EP-983004]

AP - EP 98950857/98 19981002 [1998EP-0950857]

DT - EP-P

ACTE - 19981002 EP/AE-A

EP-APPLICATION

EP 98950857/98 19981002 [1998EP-0950857]

20000308 EP/AK-A1 [+]

DESIGNATED CONTRACTING STATES IN AN APPLICATION WITH SEARCH REPORT:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

20000308 EP/AK-A4 [+]

DESIGNATED CONTRACTING STATES MENTIONED IN A

SUPPLEMENTARY SEARCH REPORT: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

20000308 EP/A1 [+]
PUBLICATION OF APPLICATION WITH SEARCH REPORT

20000308 EP/A4 [+] SUPPLEMENTARY SEARCH REPORT 20000111

20000308 EP/17P [+] REQUEST FOR EXAMINATION FILED 19991220

20010404 EP/RTI1 TITLE (CORRECTION) METHOD FOR PRESERVING MUSHROOMS

20010425 EP/RTI1 TITLE (CORRECTION) METHOD FOR PRESERVING MUSHROOMS

20010516 EP/RTI1 TITLE (CORRECTION) METHOD FOR PRESERVING MUSHROOMS

20010711 EP/17Q [+] FIRST EXAMINATION REPORT 20010525

20020101 EP/REG; GB/IF02 [+]
GB: EUROPEAN PATENT IN FORCE AS OF 2002-01-01
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20020102 EP/RIC1 CLASSIFICATION (CORRECTION) 7A 23B 7/04 A, 7A 23B 7/10 B, 7A 23B 7/154 B, 7A 23B 7/157 B

20020102 EP/RIN1 INVENTOR (CORRECTION) BEELMAN, ROBERT B. * DUNCAN, ERIC M.

20020109 EP/AK-B1 [+]
DESIGNATED CONTRACTING STATES MENTIONED IN A PATENT SPECIFICATION:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

20020109 EP/B1 [+] PATENT SPECIFICATION

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IN AUSTRIA REGISTERED AS:
(AT 211619 20020115 [ATE211619])

20020115 EP/REG; CH/EP [+] CH: ENTRY IN THE NATIONAL PHASE <CH>

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IE: EUROPEAN PATENTS GRANTED DESIGNATING IRELAND <IE>

20020228 EP/REF-P CORRESPONDS TO: (DE 69803453 20020228 [DE69803453])

20020715 EP/REG; CH/PL [-] CH: PATENT CEASED

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UP - 2002-29

2/9 INPADOC - ©INPADOC

PN - AU 732529 B2 20010426 [AU-732529]

TI - PRESERVATIVE COMPOSITIONS AND METHODS FOR MUSHROOMS

IN - BEELMAN ROBERT B; DUNCAN ERIC M

PA - PENN STATE RES FOUND

AP - AU 96791/98-A 19981002 [1998AU-0096791]

PR - US 60670/97-P 19971002 [1997US-P060670] US 120905/98-A 19980722 [1998US-0120905] WO 9820728/98(US)-W 19981002 [1998WO-US20728]

IC - A23L-003/34

3/9 INPADOC - ©INPADOC

PN - AU 96791/98 A1 19990427 [AU9896791]

TI - PRESERVATIVE COMPOSITIONS AND METHODS FOR MUSHROOMS

IN - BEELMAN ROBERT B; DUNCAN ERIC M

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AP - AU 96791/98-A 19981002 [1998AU-0096791]

PR - US 60670/97-P 19971002 [1997US-P060670] US 120905/98-A 19980722 [1998US-0120905]

WO 9820728/98(US)-W 19981002 [1998WO-US20728]

IC - A23L-003/34

4/9 INPADOC - ©INPADOC

PN - DE 69803453 C0 20020228 [DE69803453]

TI - VERFAHREN ZUR KONSERVIERUNG VON PILZEN

IN - BEELMAN ROBERT B [US]; DUNCAN ERIC M [US]

PA - PENN STATE RES FOUNDATION UNIV [US]

AP - DE 69803453/98-A 19981002 [1998DE-6003453]

PR - US 60670/97-P 19971002 [1997US-P060670] US 120905/98-A 19980722 [1998US-0120905]

WO 9820728/98(US)-W 19981002 [1998WO-US20728]

IC - A23B-007/04; A23B-007/10; A23B-007/154; A23B-007/157

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PN - DE 69803453 [DE69803453]

DT - DE-P

ACTE - 20020228 DE/REF-P

CORRESPONDS TO

(EP 983004 20020228 [EP-983004])

UP - 2002-09

2/2 LEGALI - ©LEGSTAT

PN - EP 983004 [EP-983004]

AP - EP 98950857/98 19981002 [1998EP-0950857]

DT - EP-P

ACTE - 19981002 EP/AE-A

EP-APPLICATION

EP 98950857/98 19981002 [1998EP-0950857]

20000308 EP/AK-A1 [+]

DESIGNATED CONTRACTING STATES IN AN APPLICATION WITH

SEARCH REPORT:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

20000308 EP/AK-A4 [+]
DESIGNATED CONTRACTING STATES MENTIONED IN A
SUPPLEMENTARY SEARCH REPORT:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

20000308 EP/A1 [+]
PUBLICATION OF APPLICATION WITH SEARCH REPORT

20000308 EP/A4 [+] SUPPLEMENTARY SEARCH REPORT 20000111

20000308 EP/17P [+] REQUEST FOR EXAMINATION FILED 19991220

20010404 EP/RTI1 TITLE (CORRECTION) METHOD FOR PRESERVING MUSHROOMS

20010425 EP/RTI1 TITLE (CORRECTION) METHOD FOR PRESERVING MUSHROOMS

20010516 EP/RTI1 TITLE (CORRECTION) METHOD FOR PRESERVING MUSHROOMS

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UP - 2002-29

5/9 INPADOC - ©INPADOC

PN - EP 983004 A1 20000308 [EP-983004]

TI - PRESERVATIVE COMPOSITIONS AND METHODS FOR MUSHROOMS

LA - ENG

IN - BEELMAN ROBERT B [US]; DUNCAN ERIC M [US]

PA - PENN STATE RES FOUND [US]

AP - EP 98950857/98-A 19981002 [1998EP-0950857]

PR - WO 9820728/98(US)-W 19981002 [1998WO-US20728] US 60670/97-P 19971002 [1997US-P060670] US 120905/98-A 19980722 [1998US-0120905]

IC - A23L-003/34; A23B-007/04; A23B-007/10; A23B-007/154; A23B-007/157

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2/2 LEGALI - ©LEGSTAT

PN - EP 983004 [EP-983004]

AP - EP 98950857/98 19981002 [1998EP-0950857]

DT - EP-P

ACTE - 19981002 EP/AE-A

EP-APPLICATION

EP 98950857/98 19981002 [1998EP-0950857]

20000308 EP/AK-A1 [+]

DESIGNATED CONTRACTING STATES IN AN APPLICATION WITH SEARCH REPORT:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

20000308 EP/AK-A4 [+]

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AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

20000308 EP/A1 [+]

PUBLICATION OF APPLICATION WITH SEARCH REPORT

20000308 EP/A4 [+]

SUPPLEMENTARY SEARCH REPORT

20000111

20000308 EP/17P [+]

REQUEST FOR EXAMINATION FILED

19991220

20010404 EP/RTI1

TITLE (CORRECTION)

METHOD FOR PRESERVING MUSHROOMS

20010425 EP/RTI1 TITLE (CORRECTION) METHOD FOR PRESERVING MUSHROOMS

20010516 EP/RTI1 TITLE (CORRECTION) METHOD FOR PRESERVING MUSHROOMS

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(DE 69803453 20020228 [DE69803453])

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UP - 2002-29

6/9 INPADOC - ©INPADOC

PN - EP 983004 A4 20000308 [EP-983004]

TI - PRESERVATIVE COMPOSITIONS AND METHODS FOR MUSHROOMS

LA - ENG

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PA - PENN STATE RES FOUND [US]

AP - EP 98950857/98-A 19981002 [1998EP-0950857]

PR - WO 9820728/98(US)-W 19981002 [1998WO-US20728] US 60670/97-P 19971002 [1997US-P060670] US 120905/98-A 19980722 [1998US-0120905]

IC - A23L-003/34; A23B-007/04; A23B-007/10; A23B-007/154; A23B-007/157

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DT - DE-P

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UP - 2002-09

2/2 LEGALI - ©LEGSTAT

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DT - EP-P

ACTE - 19981002 EP/AE-A

EP-APPLICATION

EP 98950857/98 19981002 [1998EP-0950857]

20000308 EP/AK-A1 [+]
DESIGNATED CONTRACTING STATES IN AN APPLICATION WITH
SEARCH REPORT:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

20000308 EP/AK-A4 [+]
DESIGNATED CONTRACTING STATES MENTIONED IN A
SUPPLEMENTARY SEARCH REPORT:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

20000308 EP/A1 [+]
PUBLICATION OF APPLICATION WITH SEARCH REPORT

20000308 EP/A4 [+] SUPPLEMENTARY SEARCH REPORT 20000111

20000308 EP/17P [+] REQUEST FOR EXAMINATION FILED 19991220

20010404 EP/RTI1 TITLE (CORRECTION) METHOD FOR PRESERVING MUSHROOMS

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20010516 EP/RTI1 TITLE (CORRECTION) METHOD FOR PRESERVING MUSHROOMS

20010711 EP/17Q [+] FIRST EXAMINATION REPORT 20010525

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20020102 EP/RIN1

INVENTOR (CORRECTION)
BEELMAN, ROBERT B. * DUNCAN, ERIC M.

20020109 EP/AK-B1 [+]
DESIGNATED CONTRACTING STATES MENTIONED IN A PATENT SPECIFICATION:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

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IN AUSTRIA REGISTERED AS:
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20020115 EP/REG; CH/EP [+] CH: ENTRY IN THE NATIONAL PHASE <CH>

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UP - 2002-29

7/9 INPADOC - ©INPADOC

PN - EP 983004 B1 20020109 [EP-983004]

TI - METHOD FOR PRESERVING MUSHROOMS

LA - ENG

IN - BEELMAN ROBERT B [US]; DUNCAN ERIC M [US]

PA - PENN STATE RES FOUND [US]

AP - EP 98950857/98-A 19981002 [1998EP-0950857]

PR - WO 9820728/98(US)-W 19981002 [1998WO-US20728] US 60670/97-P 19971002 [1997US-P060670] US 120905/98-A 19980722 [1998US-0120905] IC - A23B-007/04; A23B-007/10; A23B-007/154; A23B-007/157

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CORRESPONDS TO

(EP 983004 20020228 [EP-983004])

UP - 2002-09

2/2 LEGALI - ©LEGSTAT

PN - EP 983004 [EP-983004]

AP - EP 98950857/98 19981002 [1998EP-0950857]

DT - EP-P

ACTE - 19981002 EP/AE-A

EP-APPLICATION

EP 98950857/98 19981002 [1998EP-0950857]

20000308 EP/AK-A1 [+]

DESIGNATED CONTRACTING STATES IN AN APPLICATION WITH SEARCH REPORT:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

20000308 EP/AK-A4 [+]

DESIGNATED CONTRACTING STATES MENTIONED IN A SUPPLEMENTARY SEARCH REPORT:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

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PUBLICATION OF APPLICATION WITH SEARCH REPORT

20000308 EP/A4 [+]

SUPPLEMENTARY SEARCH REPORT

20000111

20000308 EP/17P [+]

REQUEST FOR EXAMINATION FILED

19991220

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20010425 EP/RTI1 TITLE (CORRECTION) METHOD FOR PRESERVING MUSHROOMS

20010516 EP/RTI1 TITLE (CORRECTION) METHOD FOR PRESERVING MUSHROOMS

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20020102 EP/RIN1 INVENTOR (CORRECTION) BEELMAN, ROBERT B. * DUNCAN, ERIC M.

20020109 EP/AK-B1 [+]
DESIGNATED CONTRACTING STATES MENTIONED IN A PATENT SPECIFICATION:
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8/9 INPADOC - ©INPADOC

PN - US 5919507 A 19990706 [US5919507]

TI - PRESERVATION COMPOSITIONS AND METHODS FOR MUSHROOMS

IN - BEELMAN ROBERT B [US]; DUNCAN ERIC M [US]

PA - PENN STATE RES FOUND [US]

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PR - US 120905/98-A 19980722 [1998US-0120905] US 60670/97-P 19971002 [1997US-P060670]

IC - A23L-003/34

1/1 LEGALI - ©LEGSTAT

PN - US 5919507 [US5919507]

AP - US 120905/98 19980722 [1998US-0120905]

DT - US-P

ACTE - 19980722 US/AE-A

APPLICATION DATA (PATENT)

US 120905/98 19980722 [1998US-0120905]

19980722 US/AS02

ASSIGNMENT OF ASSIGNOR'S INTEREST

PENN STATE RESEARCH FOUNDATION, THE 304 OLD MAIN

UNIVERSITY PARK, PENNSYLVANIA 1 * BEELMAN, ROBERT B. :

19980630; DUNCAN, ERIC M.: 19980630

19990706 US/A

PATENT

UP - 2000-08

9/9 INPADOC - ©INPADOC

PN - WO 9917624 A1 19990415 [WO9917624]

TI - PRESERVATIVE COMPOSITIONS AND METHODS FOR MUSHROOMS

LA - ENG

IN - BEELMAN ROBERT B; DUNCAN ERIC M

PA - PENN STATE RES FOUND [US]

AP - WO 9820728/98(US)-A 19981002 [1998WO-US20728]

PR - US 60670/97-P 19971002 [1997US-P060670] US 120905/98-A 19980722 [1998US-0120905]

IC - A23L-003/34

DS - AU* CA* AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

1/1 LEGALI - ©LEGSTAT

PN - WO 9917624 [WO9917624]

AP - WO 9820728/98(US) 19981002 [1998WO-US20728]

DT - WO-P

ACTE - 19981002 WO/AE-A

APPLICATION DATA

WO 9820728/98(US) 19981002 [1998WO-US20728]

19990415 WO/AK-A1 [+]

DESIGNATED STATES CITED IN A PUBLISHED APPLICATION WITH SEARCH REPORT

AU CA

19990415 WO/AL-A1 [+]

DESIGNATED COUNTRIES FOR REGIONAL PATENTS CITED IN A PUBLISHED APPLICATION WITH SEARCH REPORT AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

19990415 WO/A1 [+]

PUBLICATION OF THE INTERNATIONAL APPLICATION WITH THE INTERNATIONAL SEARCH REPORT

19990616 WO/121

EP: PCT APP. ART. 158 (1)

UP - 1999-26

PATNO IS 5919507

DATE: AUGUST 6, 2002

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1. 5919507 , July 6, 1999 , Preservation compositions and methods for mushrooms , Beelman, Robert B., State College, PA; Duncan, Eric M., State College, PA, 00120905, The Penn State Research Foundation, University Park, PA

CORE TERMS: mushroom, erythorbate, high-ph, sulfite, sodium, erythorbic, acid, bacterial, ppm, buffer \dots

LEVEL 1 OF 1 PATENT

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

5919507

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July 6, 1999

Preservation compositions and methods for mushrooms

APPL-NO: 00120905

FILED-DATE: July 22, 1998

GRANTED-DATE: July 6, 1999

CORE TERMS: mushroom, erythorbate, high-ph, sulfite, sodium, erythorbic, acid,

bacterial, ppm, buffer ...

ENGLISH-ABST:

Preservative compositions using toxicologically acceptable ingredients, and employing a pH of 9.0 or above for at least part of the process, for controlling the growth of spoilage bacteria and for preventing unwanted color changes in fresh and processed mushrooms. Aqueous solutions of preservatives are prepared and applied in multiple stages to the mushrooms, by spraying or immersion. More specifically, disclosed is a method for preserving fresh and processed mushrooms, comprising the steps of: contacting the mushrooms with an antimicrobial buffer solution having a pH of from about 9.5 to about 11.0; and rinsing the mushrooms one or more times immediately after the contacting step with pH-neutralizing buffer solutions of erythorbic acid and sodium erythorbate, in ratios of about 1:4, with a sufficient pH to return the mushrooms to the mushroom physiological pH of about 6.5.

5919507 OR 5,919,507

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